

25X1

TOP SECRET

25X1

25X1

5 August 1971

Copy _____

MEMORANDUM FOR: Chief, Technical Services Group, NPIC

ATTENTION : Chief, Technical Operations Staff, TSG/NPIC

SUBJECT : RED Monthly Report (July 1971)

Significant Items of Interest for July 1971:

1. Scan & Search PI Station - [] performed the acceptance tests on the optical system for this instrument [] during the first part of the month. The optics will be shipped [] the last week of July. This program is on schedule.

25X1A
25X1A

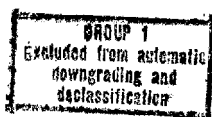
2. Dry Color Reproduction Materials Program [] has succeeded in producing the first laboratory run of materials with three color layers. There was a little bleeding of the yellow dye, but this first effort was most encouraging. Tests indicate that the speed of this material is about the same as black-and-white dry silver. The material tested resolved the full 228 lines per millimeter of a high contrast target when reproduced using contact printing.

25X1A

3. 10" by 10" Stereo Comparator - Preacceptance tests were performed during July at the [] facility and the instrument failed to meet several optical specifications. The contractor expects to have the deficiencies corrected so that tests can resume in early August.

4. High Precision Stereo Comparator - The installation of this instrument at NPIC has fallen several weeks behind schedule due to problems Logistics has encountered in controlling the temperature and humidity of the clean room site. Final alignment of the instrument cannot be accomplished until the environmental factors are brought under control. [] has submitted a request for compensation for the costs they have incurred in standby waiting for the clean room to be brought within specifications.

5. [] Light Table - [] demonstrated the fixes that could be made to meet the DIA requirements for use of a [] table for mensuration. The proposed modification appears to fill the DIA requirement. The demonstration was viewed by personnel from TSG, IEG, IAS, and DIA.

25X1
25X1**TOP SECRET**

TOP SECRET

25X1

25X1

25X1A

6. The UV Rear Projection Viewing System Evaluation has been completed [redacted] NPIC and contractor photo interpreters were used in this evaluation. The project report will be available next month.

25X1A

25X1

7. The filar eyepiece developed for the Zoom [redacted] microscope is currently undergoing operational suitability tests in IEG.

25X1A

8. [redacted] (ESD) performed the preacceptance test on a Contrast Doubler Image Viewer prototype at [redacted] This prototype unit will be delivered to NPIC during August for test and evaluation by ESD and the operational components.

25X1A

25X1A

25X1A

9. [redacted] demonstrated the improved vibration characteristics which could be obtained on the [redacted] Light Table utilizing [redacted] designed modifications to the optical mount and bridge. A change-in-scope is contemplated in this contract to afford some further design changes.

25X1A

10. Optical Image Manipulation - The interactive OIM microscope has been delivered [redacted] It is undergoing tests in the ITL/ATB.

25X1A

25X1A

11. [redacted] Renewal of the Optical Sciences Support contract has been approved at a cost of [redacted] from FY-71 funds. Effective dates of the contract are 1 April 1971 - 31 March 1972. Tutorial sessions on coherence, microdensitometry, Photometry, and lens design will be conducted [redacted] for NPIC personnel during the course of the contract.

25X1A

25X1D



25X1

25X1

13. Optical Power Spectrum Phase II - Status reports were given to the [redacted] community representatives. Data was collected using the Dupe Material Study imagery. Results indicated the OPS technique agrees with P.I. judgments.

TOP SECRET

TOP SECRET

25X1

25X1

25X1A

14. [redacted] Personnel Visit NPIC for Program Review [redacted] visited NPIC to discuss the Color Equipment Investigation Program. While they were here, they discussed a special color matching problem with [redacted] DDP/TSD; they were also briefed on operational clearances in preparation for the consultation task of the contract. Based on the discussions, a trip will be made in August [redacted]

25X1A

25X1A

25X1

25X1A

25X1A

15. [redacted] visited ATB to set up the test plan for the first test of unconventional films. The test plan will be submitted to ATB for approval during August. After approval, the tests will be started; measurements of speed, resolution, contrast control, and coating uniformity will be made on dry silver, diazo, free radical and other unconventional films.

25X1A

16. Imagery Experimentation Support - The T&M contract with [redacted] was completed 30 June. The last phase of the contract supported the Arms Control and Disarmament Agency's program to determine activated missile sites with reconnaissance photography.

25X1A

17. [redacted] completed a personal services contract on 30 June with the submission of data from an extensive stereo-vision testing program conducted under his supervision [redacted] The program is a follow-on to [redacted] stereo test development program. A new contract request will be submitted in mid-August.

25X1A

25X1A

25X1A

25X1A

18. [redacted] has requested [redacted] supplemental funding and a no-cost, time-only extension to complete work on their program, "Training Needs Associated with Color Photography."

25X1A

19. Diagnostic Computer Routine [redacted] Partial delivery has been made on the programs and documentation manuals. A change-in-scope for the remaining programming effort has been proposed and is still under consideration.

25X1A

25X1A

20. Non-Computerized Information Handling Study [redacted] - The contract has been negotiated and we are now awaiting clearance of the appropriate [redacted] personnel. However, control of the program has been transferred to PSG; RED's role will be limited to providing consulting services relating to the technologies involved and contractual monitorship.

25X1A

21. Stereo Scanning Utility Study [redacted] personnel actively started the preparation phase of this study during July. The work area assigned and equipped for this task is in APSD [redacted] (former office).

25X1A

25X1A

25X1

TOP SECRET

TOP SECRET

25X1

25X1

22. Wide-Field, High-Power Anamorphic Stereoviewer [] After a lengthy period of inactivity on this project (due to uncertainty about costs to complete) [] has been directed to proceed with the bench test of one complete optical path. In addition, they will start procurement of components needed for final fabrication subsequent to, and dependent upon, a successful bench test.

25X1A

25X1A

23. Image Comparison Microstereoscope [] Predelivery acceptance was delayed in order to make several minor last-minute fixes and adjustments. Current plans are that these fixes will be completed and the instrument will be delivered on 13 August to NPIC.

25X1A

24. CRT Image Quality Study [] This contract was effective as of 15 July. The first tasks (now underway) are procurement and assembly of test hardware and the detailed definition of the test programs. IEG personnel [] are actively involved in the latter. A detailed test program should be ready for NPIC approval about the middle of August.

25X1A

25X1

25. Viewing Systems Handbook [] Delivery of Volume I is expected in early August and will be distributed shortly thereafter. Work on Volume II has commenced.

25X1A

26. Target Indexing Device Implementation (In-House) - The TID is undergoing T&E; acceptance is expected shortly. Modifications to the software will be made soon by the contractor. This corrective program is being delayed pending approval of a maintenance contract

25X1D

28. Automated Coordinate Study [] Work on this project has been slow due to the move [] however, the purchase and assembly of equipment necessary for the study is progressing.

25X1A

25X1A

25X1A

25X1D

25X1

TOP SECRET

TOP SECRET

25X1

25X1

22. Meetings, Briefings, etc.:

25X1A

- a. On 13 July [] attended a coordination meeting at RADC on the Retro-rectifier being developed for the Air Force.

25X1A

25X1A

- b. [] demonstrated the on-line computer capability of the new NPIC Contract Information Program to RED Branch Chiefs on 20 July and [] on 26 July. This system is currently fully interfaced with the DDS&T Contract Information System.

25X1A

25X1A

- c. [] demonstrated the progress achieved in the automatic pointing task of Contract [] to IEG/PHD, TSG/APSD, and TSG/RED personnel. A significant improvement in the edge pointing mode was noted.

25X1A

- d. As a result of the briefing given by the AFSPPF, Westover AFB, to the Color Task Force on the production of black-and-white reproductions from original color acquisition film on 30 July, a meeting was held between the Air Force representative and the Exploratory Laboratory. Because of the mutual interest in this system, it is expected that a joint-in-house research effort will be initiated.

- e. Personnel from TSD were shown the [] film processor. The unit has a number of features desirable for the types of processing required by them, and they may be interested in purchasing one with some modifications.

25X1

25X1A

- f. On 8-9 July [] attended the Color Technology for Management course []. The course covered set-up, control, and costs associated with color measurement for suppliers and users of colored materials.

25X1A

25X1A

- g. On 9 July, [] A total review of the DIM program work, as well as an overview of optical power spectrum results to date, was presented [] and to attending DDS&T personnel.

25X1A

25X1A

25X1A

TOP SECRET

25X1

TOP SECRET

25X1

25X1

25X1A

h. [] conducted the following briefings:

- 1) On 8 July, the NPIC Group Chiefs were briefed on the proposed FY-72 [] Imagery Interpretation Research Program. The Acting Executive Director, NPIC, was briefed on 9 July, and the Executive Director, NPIC will be briefed early in August.
- 2) On 19 July, representatives from the Clinical Division, Office of Medical Services, were briefed on the Center's Vision Testing Program. Follow-on meetings with IEG and Center management are tentatively scheduled for mid-August.
- 3) On 22 July, the Chief, DIA-8, and his staff were briefed on the Center's Vision Testing Program. DIA subsequently requested NPIC support in conducting a stereo-vision test with materials developed under the Imagery Interpretation Research Program. The testing program began 26 July under the supervision of [] ATB/HFS summer intern.

25X1A

25X1A

i. On 28 July, the EXRAND members were briefed on the PI and PG Training Program. DIA-8 staff and DIA analysts will be briefed at the Pentagon on 3 August.

j. On 23 July, APSD personnel were briefed on the final results of the PI phase of the Emulsion Evaluation Program. Extensive series of briefings will be given Center and community management through 16 August.

25X1A

25X1A

25X1A

25X1

25X1

25X1A

25X1A

k. On 6 July, Chief/ATB [] visited [] to investigate their possibilities as a potential follow-on contract in the [] contract area [] has an impressive capability which includes 10 [] photo-interpreters, a fully cleared vault area, dedicated computer, and considerable work in the image processing area, similar to that being done []

23. Training:

a. From 12-23 July, [] attended an intensive short course in Design and Analysis of Engineering Experiments given [] This training was very effective because it emphasized the application of statistical methods to practical problems. Several short-cut and small sample size statistical tests were presented.

25X1A

25X1A

25X1

TOP SECRET

TOP SECRET

25X1

25X1

25X1A

b. [] attended the one-week course,

Advanced Color Measurement []

25X1A

[] This course (under the direction described in detail many of the aspects of colorimetry, color difference calculation, and color specification in both classroom and laboratory sessions.

25X1A

24. Personnel:

25X1A

[]

Deputy Chief
Research & Engineering Division,
TSG/NPIC

25X1

TOP SECRET